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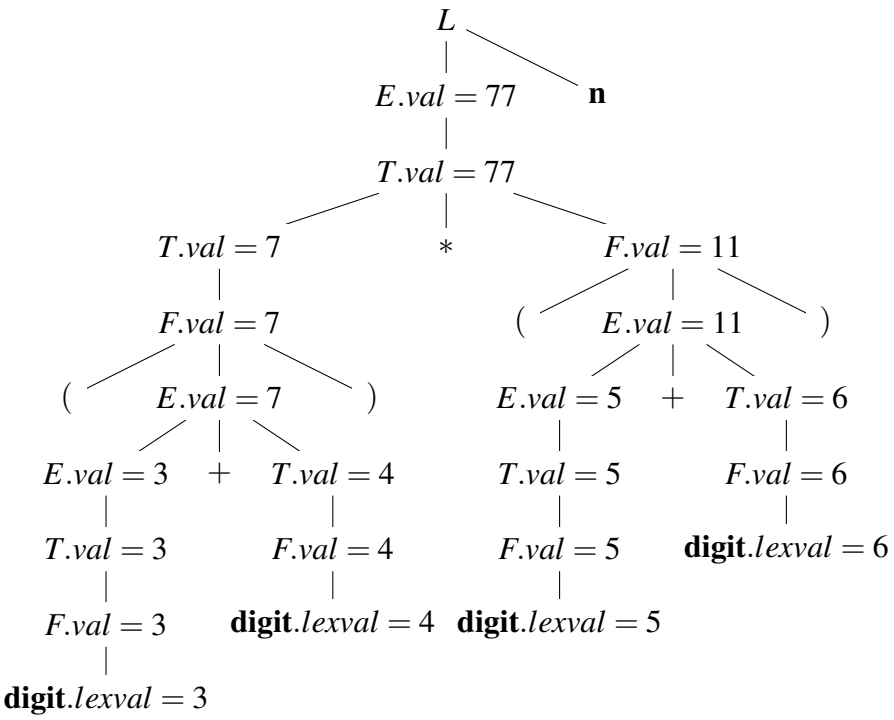
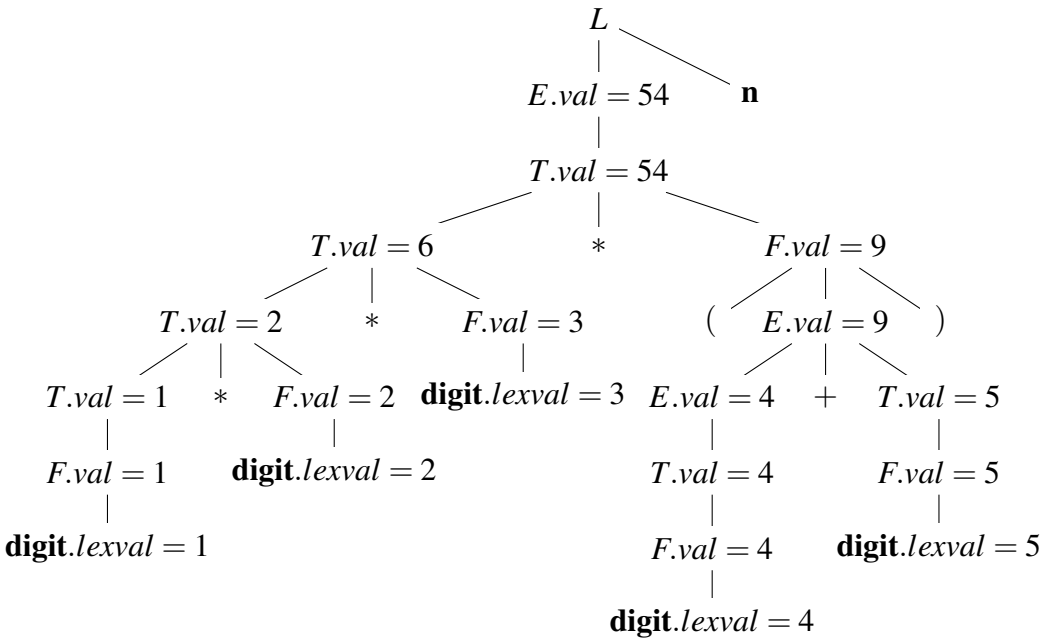
ASSIGNMENT 5

1 Exercise 1

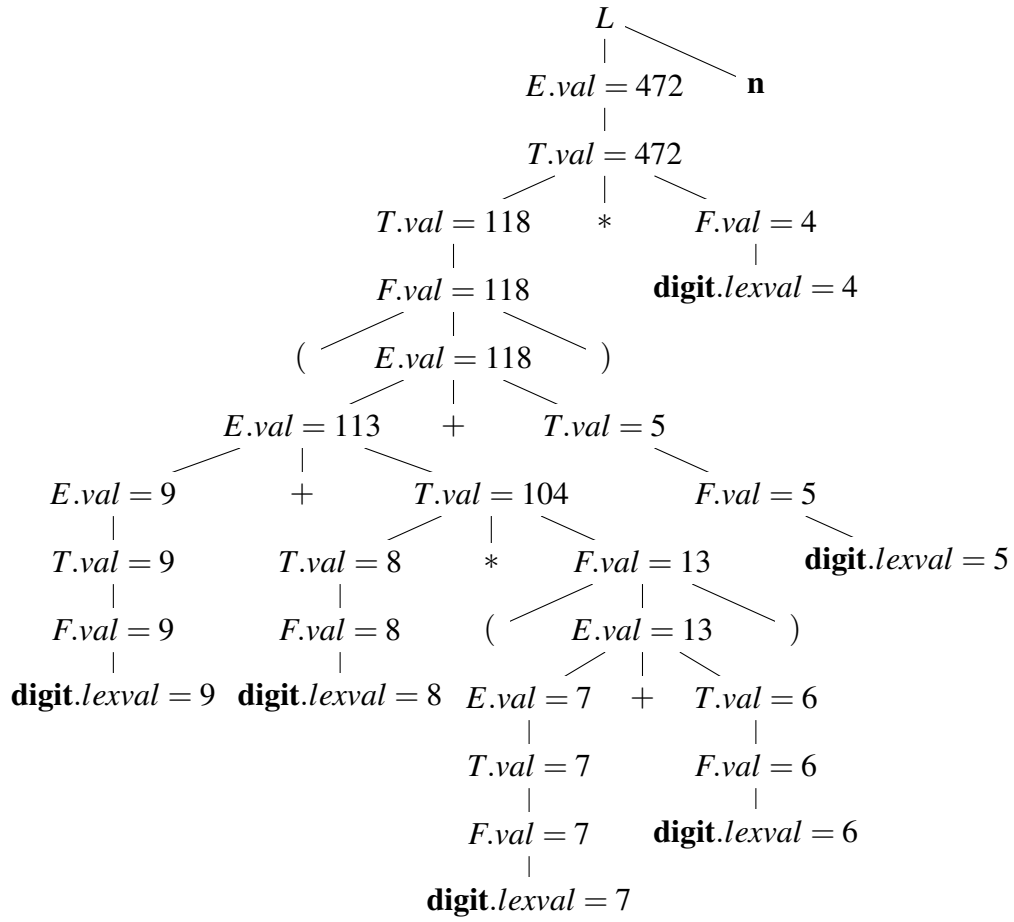
1. $(3+4)*(5+6)$**n**.



2. $1*2*3*(4+5)\mathbf{n}$.



3. $(9+8*(7+6)+5)*4\mathbf{n}$.



2 Exercise 2

There all totoally 10 different topological sorts for the dependency graph.

1: 1, 2, 3, 4, 5, 6, 7, 8, 9;

2: 1, 2, 3, 5, 4, 6, 7, 8, 9;

3: 1, 2, 4, 3, 5, 6, 7, 8, 9;

4: 1, 3, 2, 4, 5, 6, 7, 8, 9;

5: 1, 3, 2, 5, 4, 6, 7, 8, 9;

6: 1, 3, 5, 2, 4, 6, 7, 8, 9;

7: 2, 1, 3, 4, 5, 6, 7, 8, 9;

8: 2, 1, 3, 5, 4, 6, 7, 8, 9;

9: 2, 1, 4, 3, 5, 6, 7, 8, 9;

10: 2, 4, 1, 3, 5, 6, 7, 8, 9.

3 Exercise 3

	PRODUCTIONS	SEMANTIC RULES
1)	$E \to E_1 + T$	$E.type :=$ float **if** $E_1.type =$ float **else** int
2)	$E \to T$	$E.type := T.type$
3)	$T \to num.num$	$T.type :=$ float
4)	$T \to num$	$T.type :=$ int